

the goal of treating rheumatoid arthritis and other autoimmune diseases mediated by T cells.--

4. Please replace Table 6 (lines 1-5) on page 6 with the following table:

--Table 2. Design of non-T cell binding peptides

Names of polypeptides	Amino acid position									
	263	264	265	266	267	268	269	270	271	272
CII WTM (SEQ ID NO:8)	F	K	G	E	Q	G	P	K	G	E
267A (SEQ ID NO:1)	-	-	-	-	A	-	-	-	-	-
268A (SEQ ID NO:2)	-	-	-	-	-	A	-	-	-	-
269A (SEQ ID NO:3)	-	-	-	-	-	-	A	-	-	-
270A (SEQ ID NO:4)	-	-	-	-	-	-	-	A	-	-
Mut 269-270 (SEQ ID NO:5)	-	-	-	-	-	-	A	A	-	-
Mut 268-270 (SEQ ID NO:6)	-	-	-	-	-	A	G	A	-	-
Mut 267-270 (SEQ ID NO:7)	-	-	-	-	G	A	G	A	-	-

--

5. Please replace paragraph 8 (page 2, line 36 to page 3, line ¹⁰40) with the following paragraph:

--By research on crystal structure of HLA-DRβ1-antigen dim[[m]]er using X-ray diffraction technique, it is found that a variety of antigen peptides which bind to rheumatoid arthritis related to HLA-DRβ1 (DR4/DR1) molecules are extremely similar in configuration, including denatured type II collagen (CII) and Heat Shock Protein (HSP)⁽⁹⁻¹²⁾. From the ~~tridimensional~~ 3-dimentional structures of these peptides (Figure 1), it can be seen that the side chains of Phe263 (P1), Glu 266 (P4) and Gly271 (P9) stretch to the HLA- DRβ1 molecule in the left, and are imbedded into the antigen binding cleft entirely or partially, while side chains of the other amino acids stretch to another side of the side opposite to HLA- DRβ1 (the side of T cell receptor) to stimulate T cell activation. From figure 2, it can be seen that the side chains of P1, P4, and P9 of CII polypeptide are imbedded into the antigen binding "pocket" of HLA- DRβ1. Negatively charged P4 (Glu) is adjacent to positively charged amino acid 71 (Lys71) of HLA- DRβ1, which forms the polar binding